

ABSTRACT

The use of a standard CMOS process to fabricate optical and electronic devices at the same time on a monolithic integrated circuit. Optical devices such as waveguides, couplings, gratings, modulators, filters, multiplexers, demultiplexers, photodetectors and other optical devices can be made in a CMOS process at the same time as electronic devices are formed on the same integrated circuit. Many of the process steps and materials used in the production of CMOS circuits can be used to form elements of optical devices.